

## REMARKS

Currently Claims 15-27 are pending in the present application, including independent Claims 15, 26, and 27. In the Office Action mailed on July 14, 2004, the Examiner has rejected Claims 16 and 26-27 as indefinite under 35 U.S.C. § 112. The Examiner has also rejected Claims 15-16, 22-23, 25, and 26 as obvious over Gierveld (U.S. Patent No. 5,046,746) in view of Swearington (U.S. Patent No. 5,056,509), and implicitly official notice with respect to Claims 15, 22, and 25. Claims 17-18, 24, and 27 are rejected as obvious in further view of Olson (U.S. Patent No. 5,171,033), and Claims 19-21 are rejected as obvious in further view of Thorson (U.S. Patent No. 5,443,267). The applicants thank the Examiner for his thorough review of the present application.

### Abstract

The abstract is amended herein to remove the numeric designators that were improperly inserted. The undersigned appreciates the Examiner identifying this error.

### Rejections Based on Indefiniteness

Claim 26 is amended to remove the words "improved" and "of the type" by replacing --An improved skate of the type including-- with A skate having.

Claim 16 is amended to replace the phrase --completely separate from-- with the much more clear phrase, not mechanically attached to.

It is believed that all of the Examiner's comments regarding definiteness are corrected, and that these rejections may therefore be withdrawn.

### Rejections Based on Obviousness

The problem solved by the present invention is how to provide an in-line roller skate having a comfortable shoe, while also providing lateral support to enable the skater to easily maintain the skate upright on the narrow support base provided by the in-line wheels. In prior art

LAW OFFICES OF  
CHRISTENSEN O'CONNOR JOHNSON KINDNESS<sup>PLLC</sup>  
1420 Fifth Avenue  
Suite 2800  
Seattle, Washington 98101  
206.682.8100

in-line skates, comfort is sacrificed in favor of providing support with a substantially rigid upper shoe assembly. As noted on page 2 of the present application, "Because serious ankle and other injuries can result if comfort is favored over support, proper support in an in-line roller skate has been the dominant design criteria in the past."

Neither Gierveld nor Swearington addresses the problem that is solved by the present invention. Gierveld does not provide any ankle support and Swearington discloses an orthopedic brace that is expressly intended to move laterally in inversion and eversion movements and, therefore, also does not provide the support. Swearington also does not contemplate use of the orthopedic brace with a skate.

The presently claimed invention solves the identified problem by providing an in-line skate having a non-rigid, i.e., pliable, upper that is secured to a base, thereby providing a comfortable shoe while including a substantially rigid internal heel counter that is fixedly secured to the base and a substantially rigid ankle support cuff that is constrained to pivot about an axis transverse to the base. The rigidity of the ankle support cuff, combined with its constraint to pivot only about the transverse axis, improves the skater's ability to keep the skate vertical, while the upper itself is non-rigid, providing a more comfortable skating experience.

The claims, as amended herein, are believed to be patentably distinguishable over the prior art.

#### Non-Rigid Upper

In order to more clearly identify the combination of the present invention that is believed to be patentable, the claims are herein amended to recite that the upper portion of the in-line skate is pliable rather than non-rigid. All of the pending claims of the present application now recite a pliable upper portion secured to the base.

The Examiner states at paragraph 8 of the Office Action, that Gierveld discloses a non-rigid upper portion. Gierveld discloses an inline roller skate (11) having a shoe (12) that is attached to a frame (13). The undersigned was unable to find any teaching in Gierveld that the shoe is non-rigid. Moreover, none of the figures suggests that the upper portion of the shoe is non-rigid and, in the figures, the shoe appears to be of unitary construction. For example, no attachment means, such as stitching, is shown between the upper and sole of the shoe, and the sole does not extend beyond the perimeter of the upper portion of the shoe. The shoe shown by Gierveld appears to be rigid. In addition, with the low-cut shoe style, the shoe provides no other ankle support. It is respectfully asserted that nothing in Gierveld teaches or suggests a non-rigid or pliable upper portion of the shoe.

The applicants acknowledge, however, that "non-rigid" could be interpreted to mean having no flexibility at all, which was not the meaning intended by the application. To clarify this aspect, therefore, the claims are herein amended to recite that the upper portion is pliable. This amendment is fully supported throughout the specification. For example, page 8 of the application states, "Most of the rest of upper 12 is constructed of soft, breathable, pliable material of the type commonly used in shoes or hiking boots. Thus, synthetic or natural leathers and meshes or other fabrics may be used to construct the soft portions of upper 12."

In paragraph 12e of the Office Action, in reference to Claim 26, the Examiner acknowledges that "Gierveld is silent as to the upper portion being non-rigid," but asserts that "Gierveld states that the upper portion is old and known (refer column 2, line 21, where is implied the shoe being made of various materials which, clearly, would include non-rigid materials)." As discussed in the present application, known skates typically use a substantially rigid material for the shoe portion, which is what is apparently contemplated by Gierveld.

In Olson et al. (U.S. Patent No. 5,171,033) cited by the Examiner, the importance of the rigid boot upper is emphasized. For example, at Col. 6, lines 59 *et seq.*, Olson et al. states, "While other configurations for ventilators 61, 61a will also suffice, the elongated configuration in combination with toe bar 35 provides a greatly increased cooling and drying air flow into boot 12 while substantially retaining the protection provided by a solid, rigid ski-type boot." (Emphasis added.) Olson et al. addresses the same problem identified in the present application, but solves the problem in a very different manner (by ventilating the rigid upper).

None of the prior art discloses an in-line skate having a pliable upper secured to the base, as claimed in all of the pending claims. The claims are therefore believed to be patentably distinguishable over the prior art.

#### Substantially Rigid Ankle Cuff

All of the pending claims, as amended herein, recite a substantially rigid ankle cuff. Gierveld does not disclose any ankle support. Swearington expressly states that "the inner ankle brace comprising the arms 5 and 6 and cuff portion 8 is formed of flexible plastic material so that in addition to the plantar and dorsi flexion provided by the pivot 7, the ankle brace may move laterally in inversion and eversion movements." (Col 2, lines 46-51, emphasis added.) The ankle brace disclosed by Swearington does include a pair of oppositely disposed rigid T-shaped bars 12 and 13, but even these T-shaped bars are pivotally mounted to permit inversion and eversion movements: "T-shaped bars 12 and 13 forming outer brace members are pivotally mounted on the flanges 10 and 11 as shown at 14 in FIGS. 1 and 5." (Col. 2, lines 56-58).

Therefore, none of the cited prior art discloses a substantially rigid ankle cuff, which is a claimed element of all of the present claims (as amended). The claims are therefore believed to be patentably distinguishable and in condition for allowance.

Ankle Cuff Constrained to Pivot About an Axis Transverse to the Longitudinal Axis of the Base

All of the pending claims include the limitation that the ankle support cuff is constrained to pivot about an axis transverse to the longitudinal axis defined by the base. This is an important aspect of the presently claimed invention, because the purpose of the ankle support cuff is to ease the skill and effort required to maintain the skates in a substantially vertical position, as discussed above and in the present application (and in Olson et al.).

This aspect of the invention is clearly disclosed in the present application. For example, at page 16, lines 28 *et seq.*, the application notes:

In order to support the user's ankle in the lateral and medial directions, while enabling flexure of the ankle to a predetermined extent in the forward and rearward direction that is unrestricted by the non-rigid upper portion, the skate of FIGURES 15-17 includes an independent ankle support cuff assembly 1140. The ankle support cuff assembly 1140 includes a substantially rigid ankle support cuff 1142, an internal ankle pad 1144 (FIGURES 16 and 17), a partial external ankle shell 1146, and a selectively securable fastener 1148.

The Examiner states in paragraph 8c. of the Office Action that Swearington teaches an ankle support cuff that is constrained to pivot about an axis transverse to the longitudinal axis. The applicant respectfully disagrees. Swearington teaches directly away from such a constraint. Figure 5 of Swearington shows that the outer brace T-bar members 12 and 13 are specifically designed to pivot about an axis parallel to the transverse axis, i.e., in inversion and eversion. Swearington teaches the importance of this aspect of the invention throughout the patent. For example, the abstract recites, "The inner brace is flexible so that it permits inversion and eversion of the foot as well as unlimited dorsiflexion and plantar flexion movement due to the pivotal joint in the inner member."

Swearington, therefore, does not disclose an ankle brace that is constrained pivot about a transverse axis.

In paragraph 12d of the Office Action, the Examiner states that "it would have been obvious to one of ordinary skill . . . to have modified the skate of Gierveld to incorporate . . . the teachings of Swearington to provide a comfortable ankle support stabilizing the ankle from rotation except about an axis transverse to the longitudinal axis. . . ." However, as discussed above, Swearington does not teach an ankle support that is constrained to pivot about an axis transverse to the longitudinal axis. Therefore, even combining the teaching of Gierveld with Swearington does not get one to the presently claimed invention.

It is also noted that neither Swearington nor Gierveld teaches or suggests a heel counter fixedly secured to the base, which is also an element of Claims 15-24. Gierveld and Swearington cannot be combined to arrive at the present invention.

The Examiner acknowledges in paragraph 12f of the Office Action that the Swearington design uses two pivot elements—one to permit rotations about a transverse axis, and a second to permit rotations about a longitudinal axis. The Examiner then asserts that it has been held within the skill of a worker to omit an element and, therefore, it would have been obvious to omit the pivoting function only about the transverse axis, relying on *Ex parte Wu*, 10 U.S.P.Q.2d 2031 (Bd. Pat. App. & Inter., 1989). However, the present case is distinguishable from *Wu*. In *Wu*, the applicant submitted a claim for a method for decreasing corrosion "by contacting the metal surface with a composition consisting of . . . [a list of constituents] . . . ." (emphasis added). The Board held that it would have been obvious to omit salts of polybasic acids disclosed in a prior art reference. In the present case, the apparatus disclosed by Swearington would not provide the functionality claimed in the present invention. Unlike the facts of *Wu*, the apparatus disclosed by Swearington is not directed to the same purpose as the present invention and does not provide the lateral support to aid the skater in maintaining in-line skates in an upright position. In *Wu*, the Board expressly stated that the fact the references were directed to the same purpose provided

the commonality required to combine them against the application, "The fact that all of the references are directed to treating metals with compositions to impart corrosion resistance provides an adequate commonality of interest between the four references, as well as appellant's field of endeavor, to suggest the pertinence of the teachings of each of the references to the appellant's problem." *Wu* at 2033.

Swearington is clearly not directed to the problem solved by the present invention.

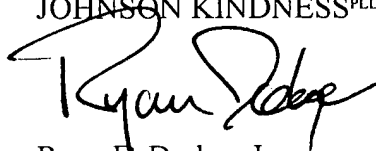
### CONCLUSION

All of the claims, as amended herein, recite an in-line skate having a pliable upper and a substantially rigid ankle support cuff that is constrained to pivot about an axis that is transverse to the longitudinal axis of the base. These aspects of the invention are not disclosed in any of the cited prior art. Claims 15-27 are therefore believed to be patentably distinguishable over the prior art. Entry of the amendments and a favorable disposition are respectfully requested.

The Examiner is encouraged to contact the undersigned if there remain any questions or with any comments relating to this application.

Respectfully submitted,

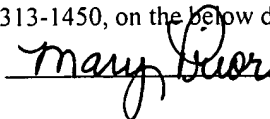
CHRISTENSEN O'CONNOR  
JOHNSON KINDNESS<sup>PLLC</sup>



Ryan B. Dodge, Jr.  
Registration No. 42,492  
Direct Dial No. 206.695.1724

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RED:mgp

LAW OFFICES OF  
CHRISTENSEN O'CONNOR JOHNSON KINDNESS<sup>PLLC</sup>  
1420 Fifth Avenue  
Suite 2800  
Seattle, Washington 98101  
206.682.8100